

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

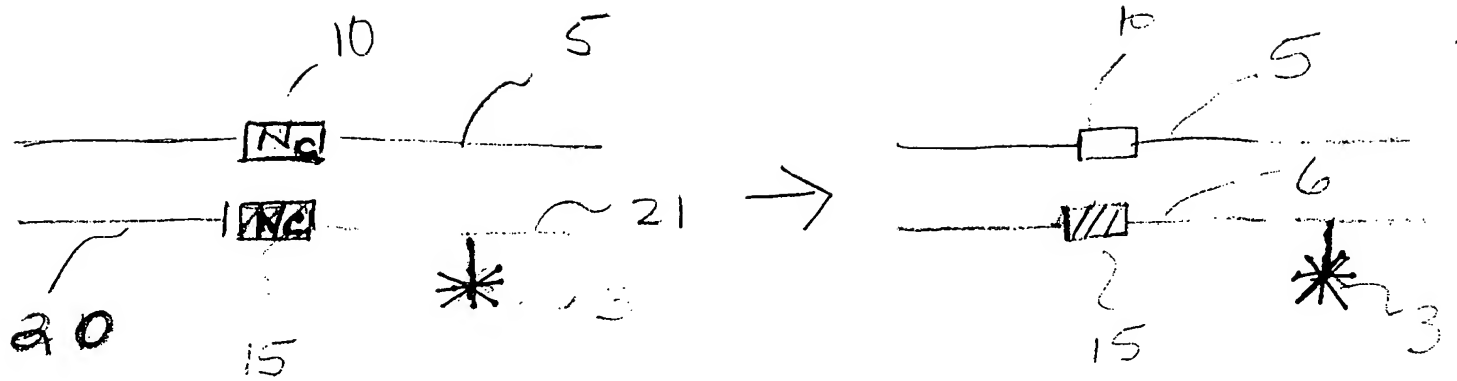


Fig. 1A

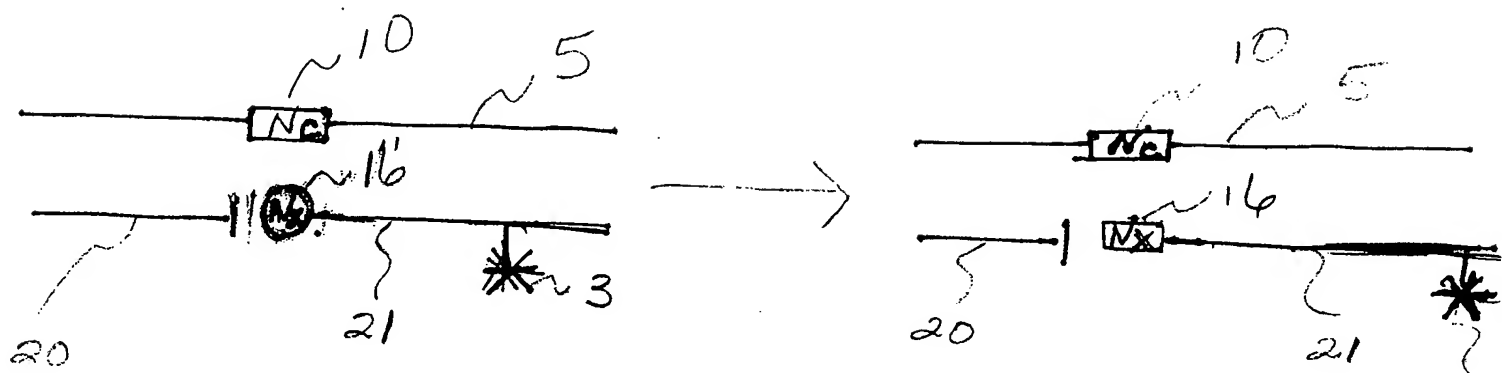
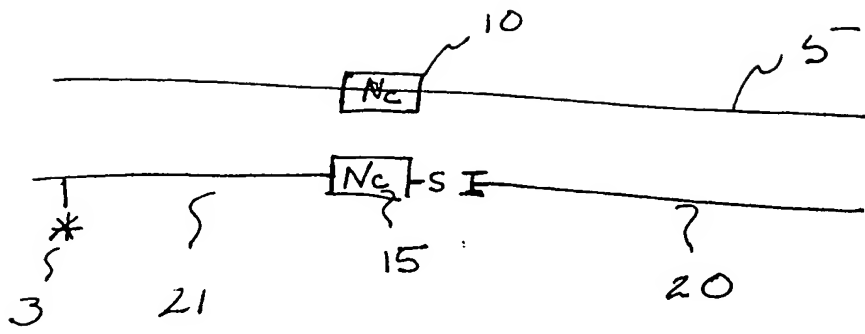
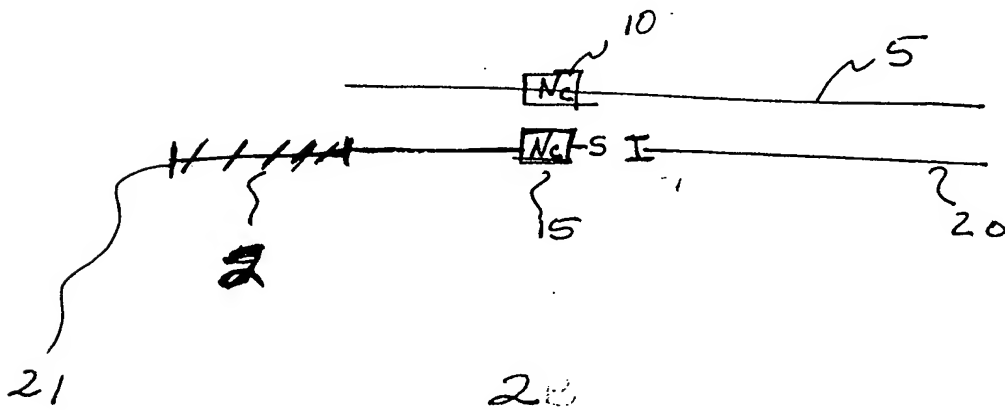


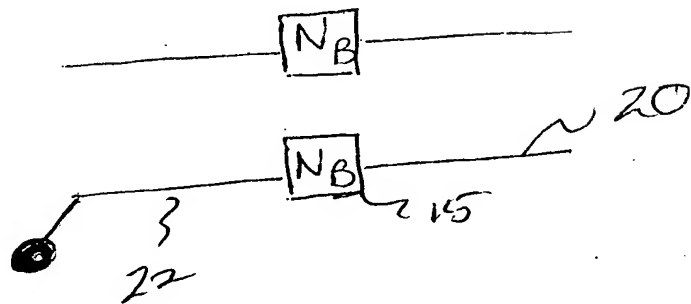
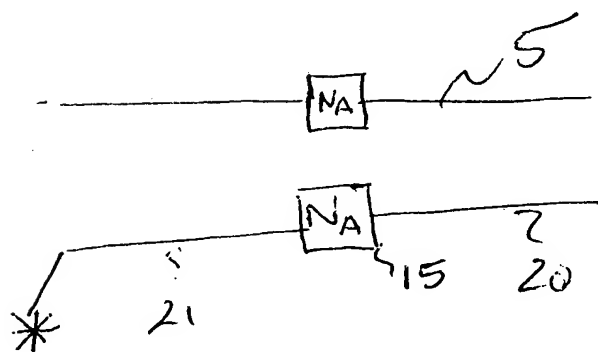
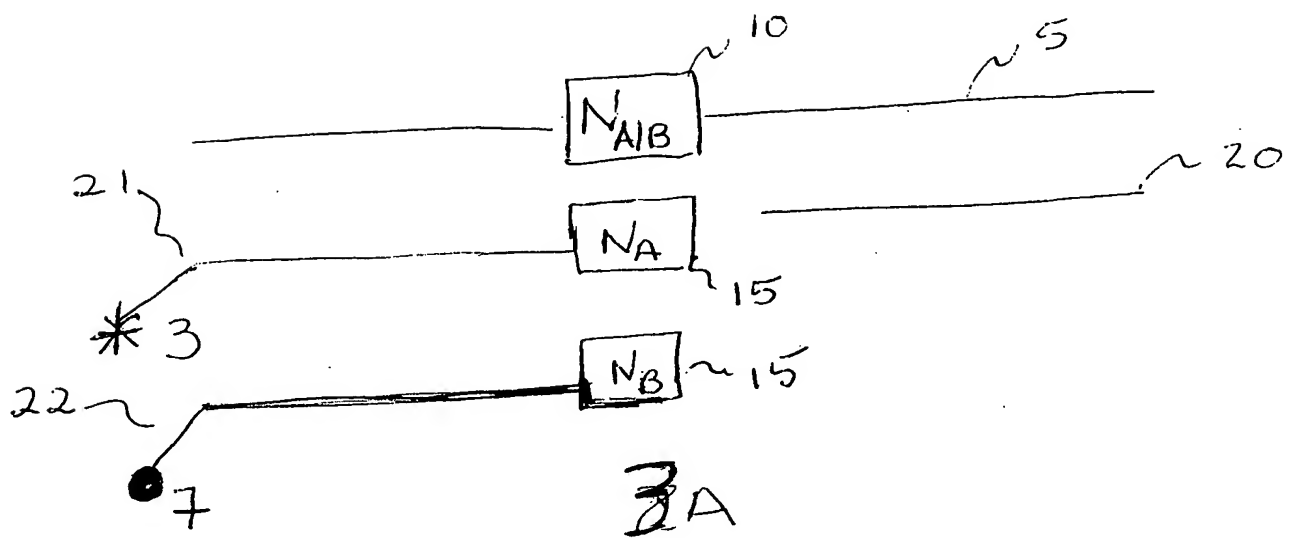
Fig. 1B



2.



2B



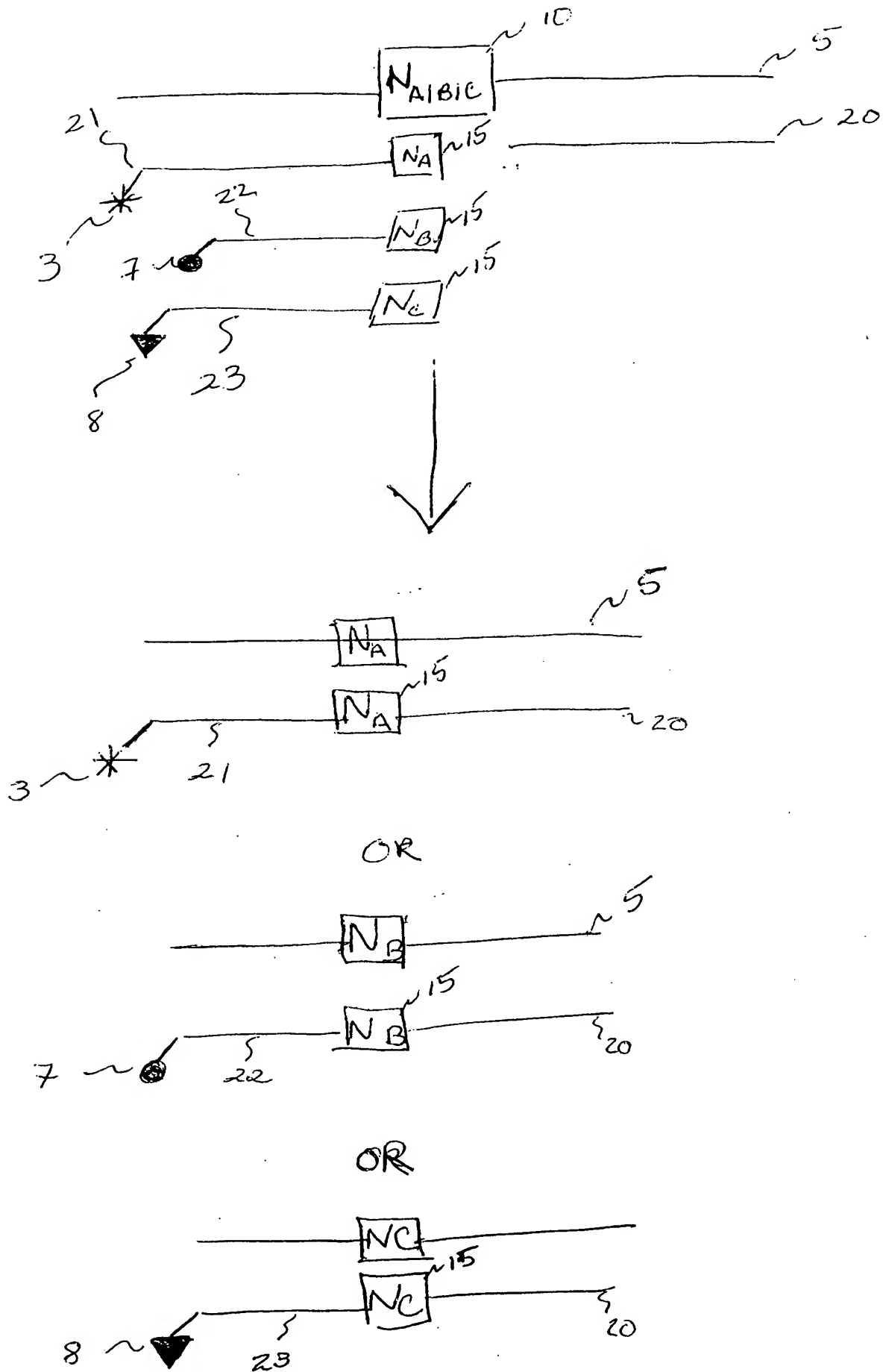


FIG. 3D

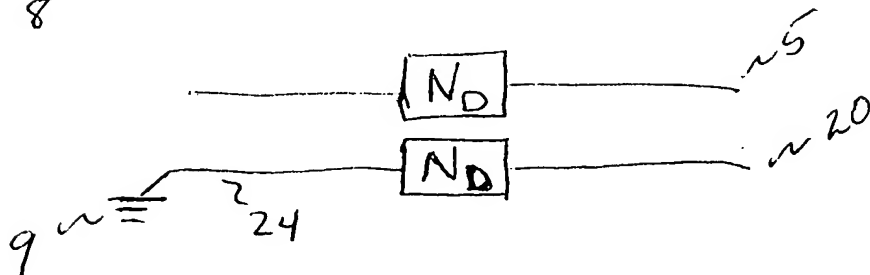
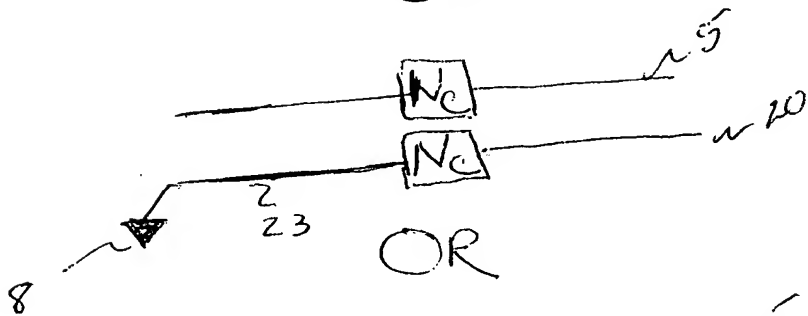
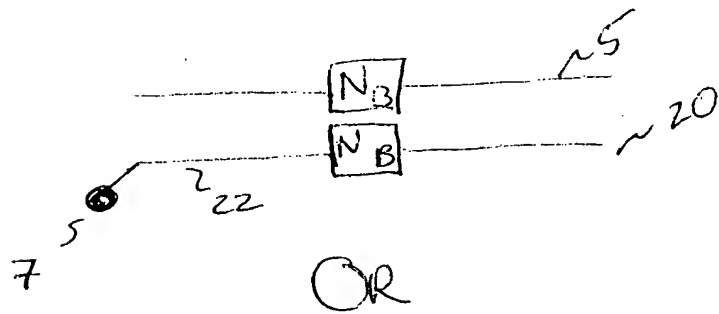
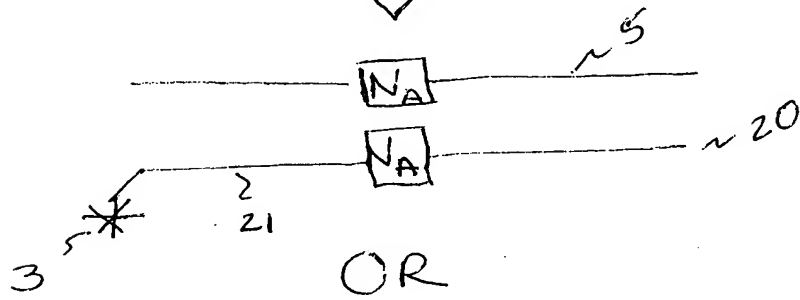
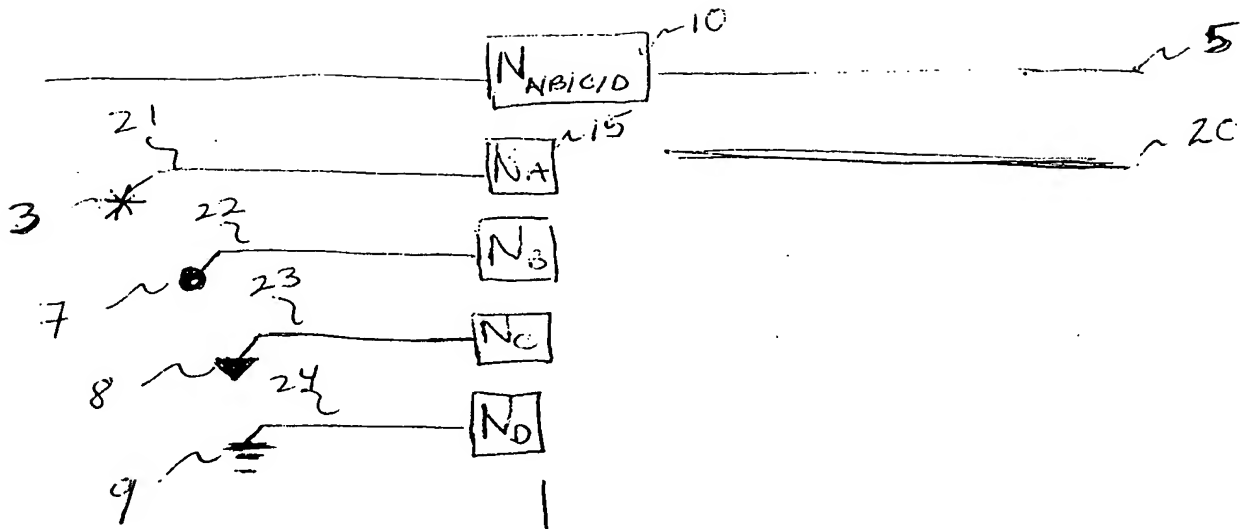
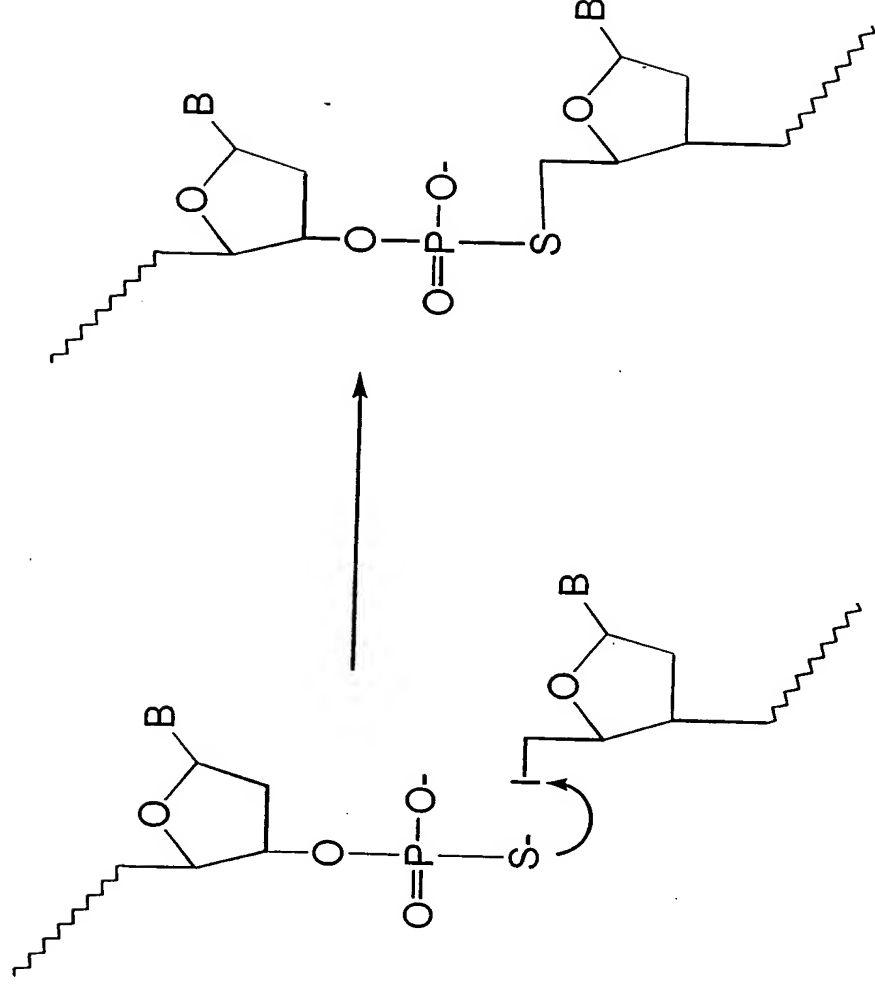
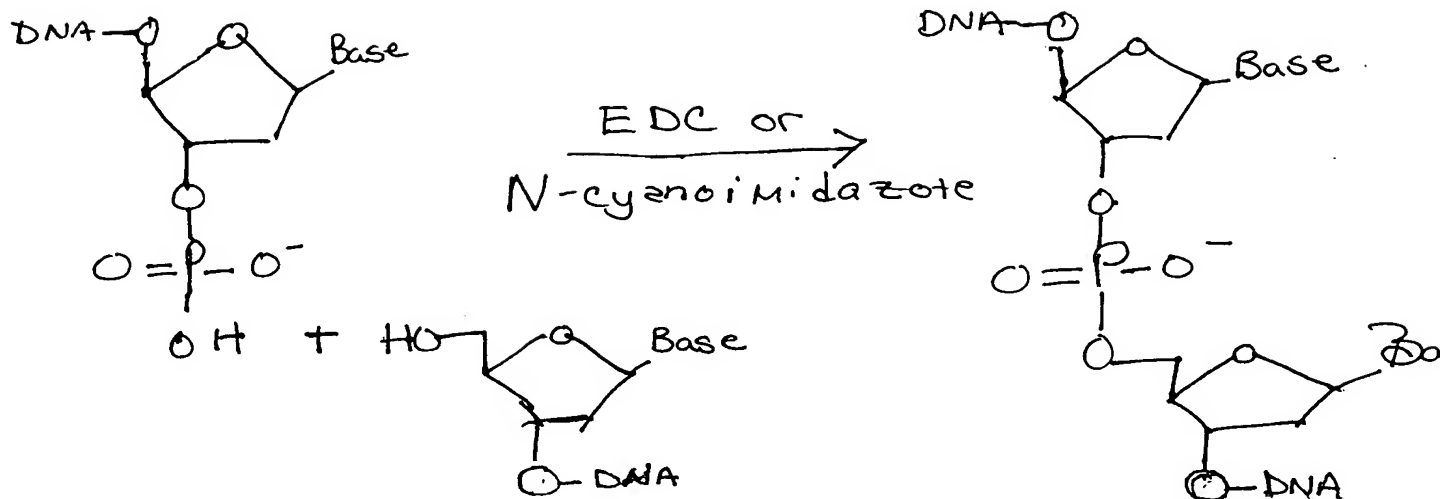


FIG. 3E

# 5' Iodo – 3' Phosphothioate Non Enzymatic Ligation





phosphodiester

Fig 5A

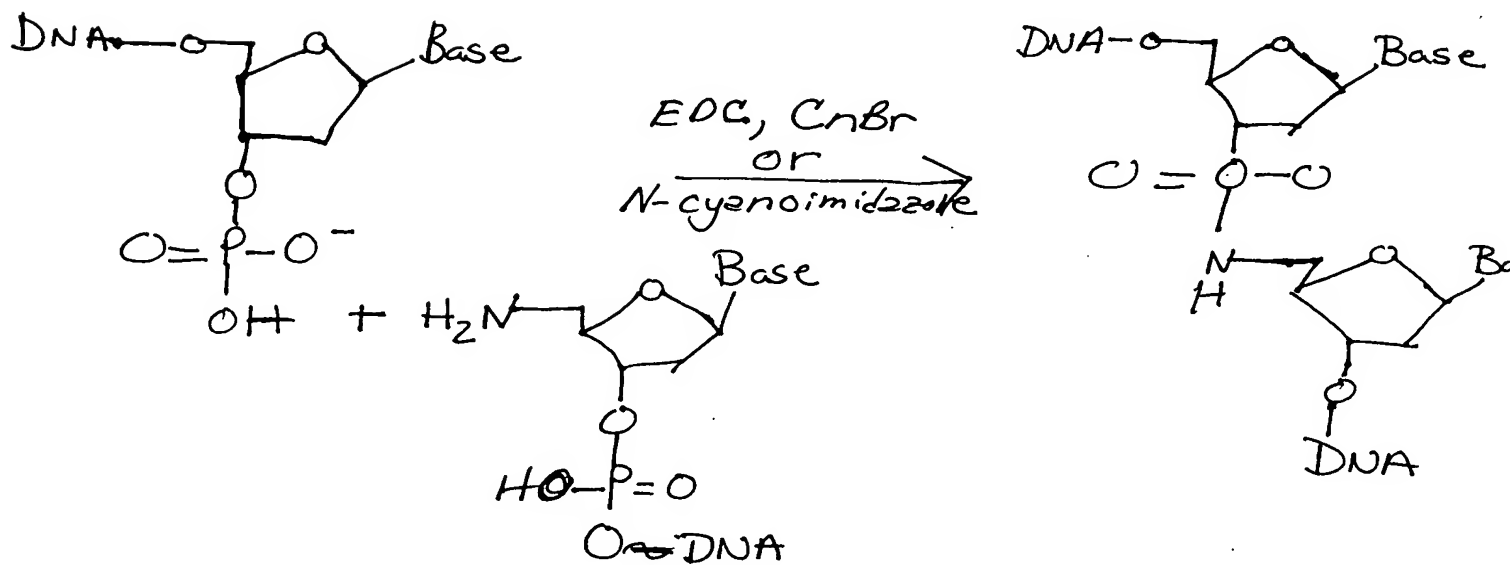


Fig 5B



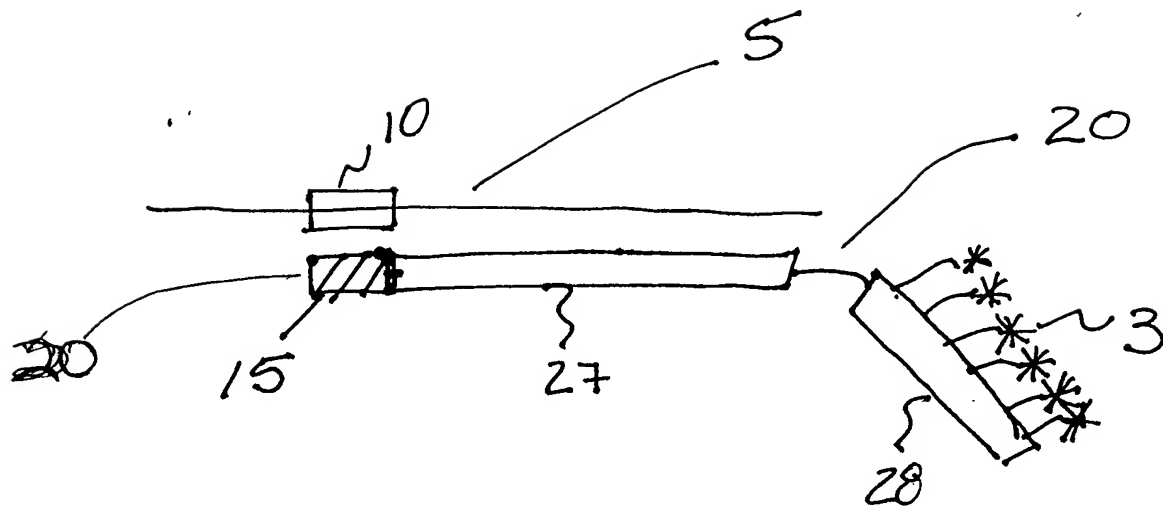


Figure 6

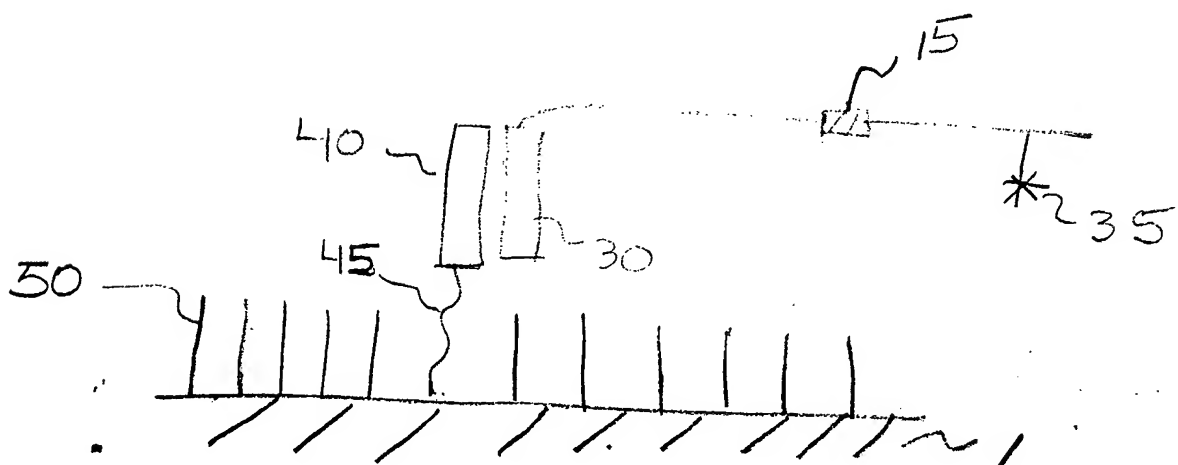
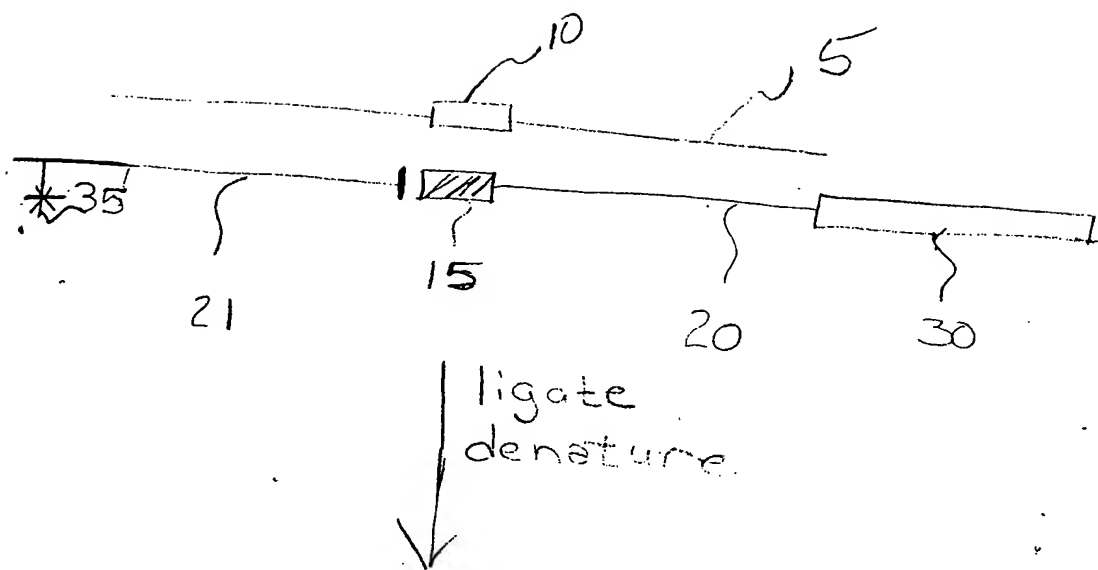
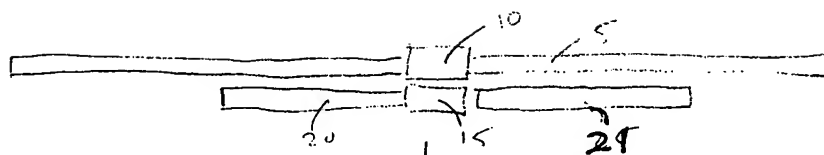
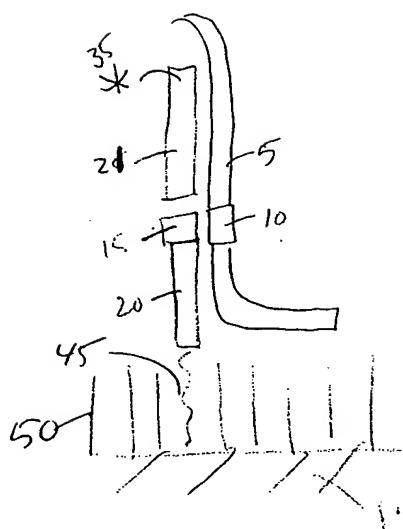
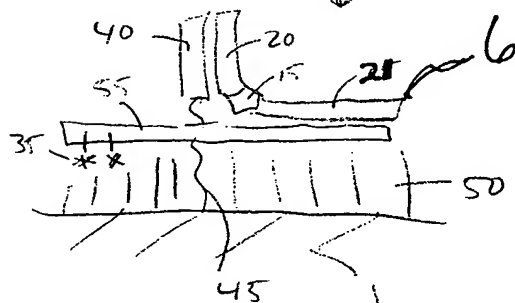


Fig 7

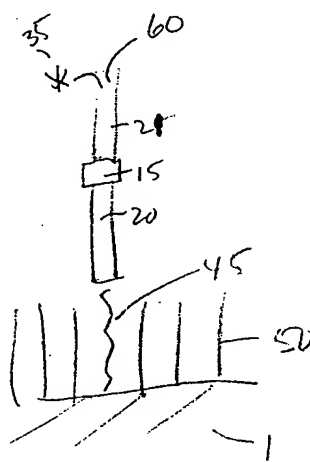


ligate  
denature  
optionally remove unligated probes

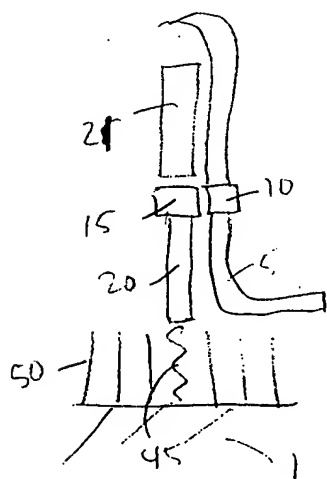
8 A



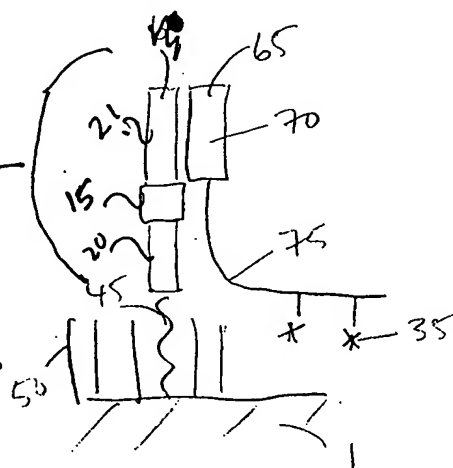
ligate  
→  
denature  
direct



8 B



ligate  
denature  
add  
label  
probe



8 C



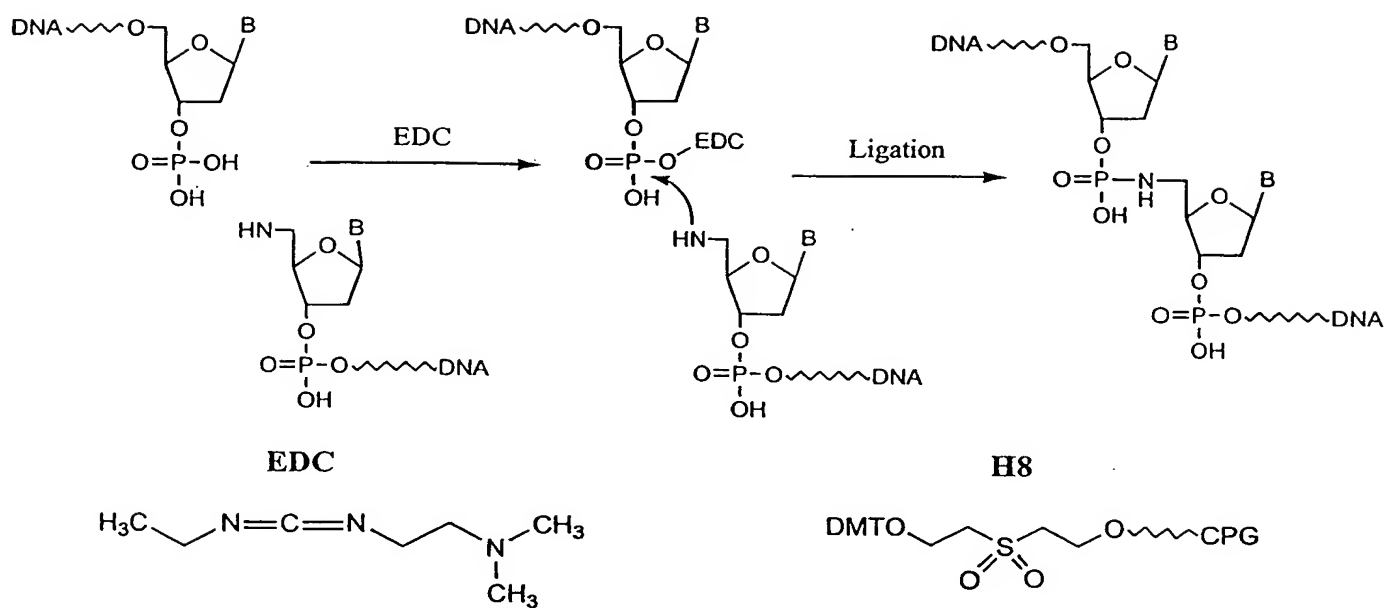


Fig 10

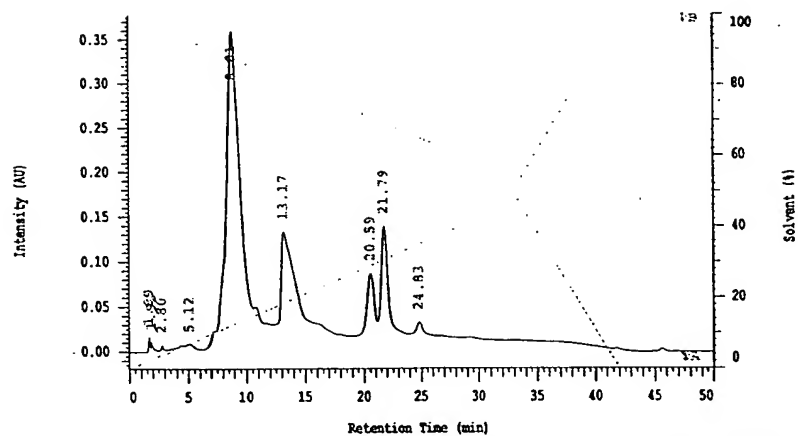


Figure 11A Chromatogram of chemical ligation after 2 hours of incubation (#5135)

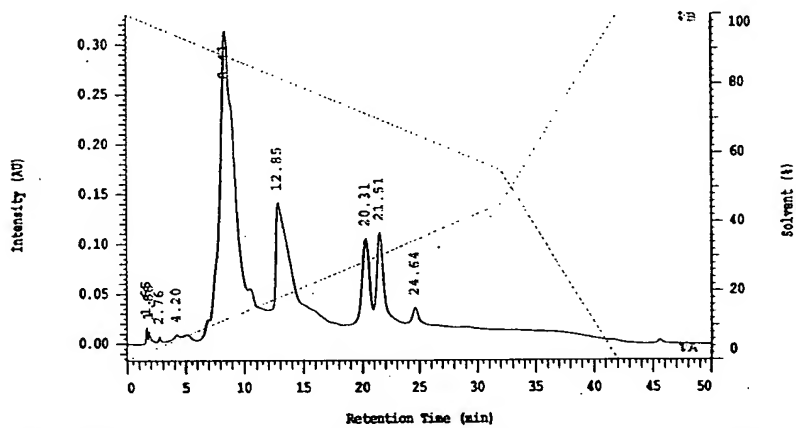


Figure 11B Chromatogram of chemical ligation after 4 hours of incubation (#5145)

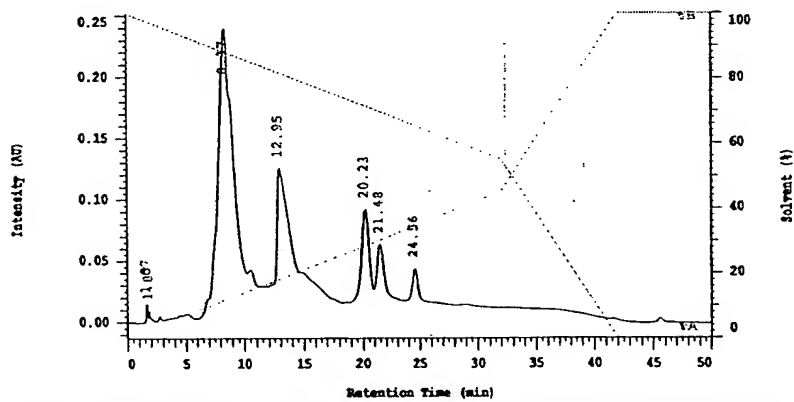


Figure 11C Chromatogram of chemical ligation after overnight incubation (#5158)

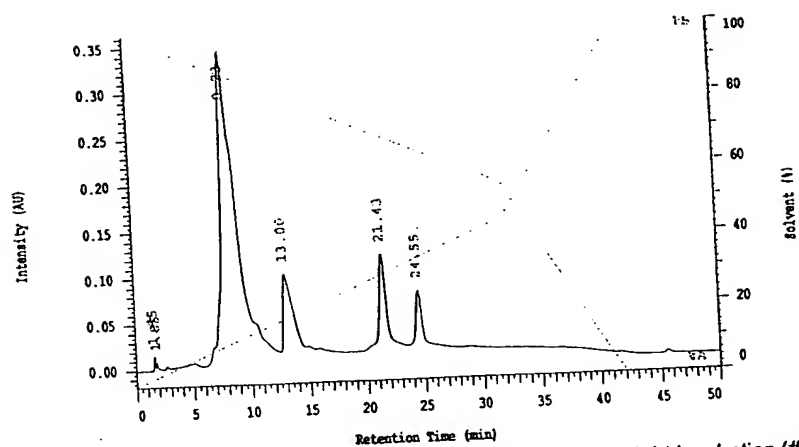


Figure 4. Chromatogram of chemical ligation (mismatch) after overnight incubation (#5156)

Fig. 11 D

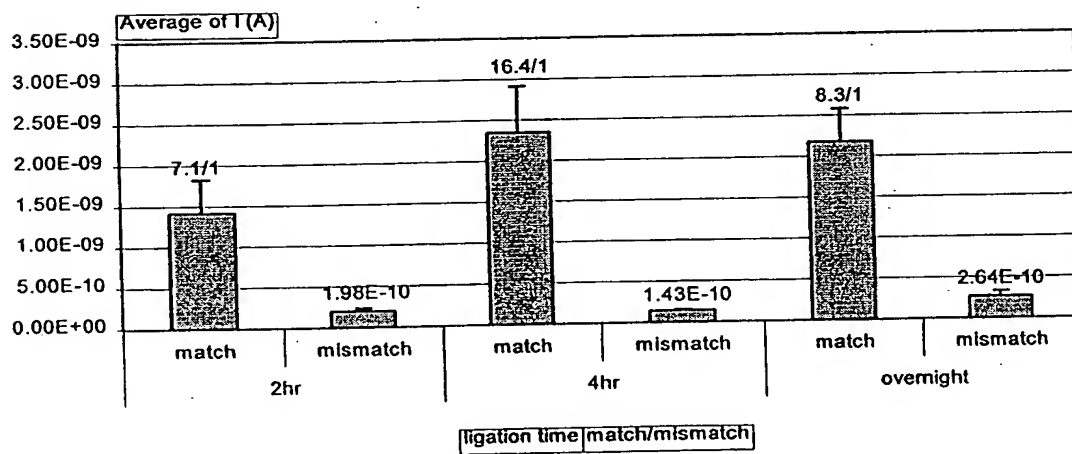


Fig 12